



**THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES**

In Re Application of:	)	Art Unit: 3637
	)	
Ziegler et al.	)	Examiner: Phi Dieu Tran, A
	)	
Serial No.: 10/084,795	)	Confirmation No.: 7876
	)	
Filed: February 25, 2002	)	Customer No.: 00112
	)	
For: SUPPORT GRID SYSTEM	)	Docket No.: 0108

**APPEAL BRIEF**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
PO Box 1450  
Alexandria, Virginia 22313-1450

Sir:

This Brief is submitted in triplicate pursuant to 37 CFR 1.192 in support of the Notice of Appeal filed in the above-identified application.

A fee of \$500.00 for filing an Appeal Brief in this application (37 CFR 41.20) was previously paid on June 20, 2005. Since no Board decision was made on the prior appeal, Applicant's request that the previously paid fee of \$500.00 be applied to this Appeal Brief.

Submitted herewith is a request for an extension of time for two months from September 19, 2007 to November 19, 2007. Please charge any additional fees due, or refund any excess fees, to Deposit Account No. 012400.

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REAL PARTY IN INTEREST

The real party in interest in this application is Armstrong World Industries, Inc., the assignee of the present application.

RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellants, or Appellants' legal representatives, which will: directly affect; be directly affected by; or have a bearing on the Board's decision in the pending Appeal.

STATUS OF CLAIMS

Claims 2-4, 10-15 and 17-21 have been cancelled.

Claims 1, 5-9, 16 and 22 are pending in the application, are under rejection and are hereby appealed.

STATUS OF AMENDMENTS

There were no amendments filed subsequent to final rejection in this application.

Therefore, the claims are as they appear in Appellants' Amendment of November 3, 2006.

### SUMMARY OF CLAIMED SUBJECT MATTER

The subject matter of independent claim 1 is a ceiling system having: a grid formed from a plurality of parallel-extending main runners (10) and a plurality of cross runners. Each of the main runners has a vertical web and a bulb portion (14) (page 3, lines 20-21). The ceiling system further includes a plurality of compression struts (12) (page 3, lines 8-9), a plurality of panels resting within the grid (page 6, lines 7-19) and a plurality of clips (2) (page 3, lines 8-9). Each clip has a first leg (6), a second leg (4) and a mid-portion (8) disposed between the first and second legs (page 3, lines 9-10 and page 4, line 1). The plurality of compression struts and each of the plurality of clips are discrete parts (Figures 1a-1c and 3). The first leg of each clip is in direct contact with and is secured to the vertical web of a main runner (page 3, line 10). The second leg of each clip is in direct contact with and is secured to the compression strut (page 3, lines 10-11). The mid-portion of each clip conforms to the bulb portion of a main runner (page 4, lines 2-3). The bulb portion of the main runner is interposed between the compression strut and the mid-portion of the clip (Figures 1a-1c and 3).

The subject matter of independent claim 9 is a support member for a ceiling panel which comprises a main runner (10), a compression strut (12) and a clip (2) (page 3, lines 5-9). The main runner has a vertical web and a bulb portion (14) (page 3, lines 20-21). The clip has a first leg (6), a second leg (4) and a mid-portion (8) (page 3, lines 9-10 and page 4, line 1). The compression strut and the clip are discrete parts (Figures 1a-1c and 3). The first leg of the clip is in direct contact with and is secured to the vertical web of the main runner (page 3, line 10). The second leg of the clip is in direct contact with and is secured to the compression strut (page 3, lines 10-11). The mid-portion of the clip is disposed between the first leg and second leg and is

shaped to conform to the bulb portion of the main runner (page 4, lines 1-3). The bulb portion of the main runner is interposed between the compression strut and the mid-portion of the clip (Figures 1c and 3).



GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Claims 5 and 16 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

Claims 1, 8, 9 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,723,749 to Carraro et al. ("Carraro et al.") in view of U.S. Patent No. 4,905,952 to Pinquist ("Pinquist") and U.S. Patent No. 3,599,921 to Cumber ("Cumber").

Claim 9 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Carraro et al. in view of Cumber.

Claim 5 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Carraro et al. in view of Pinquist and Cumber.

Claims 6 and 7 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Carraro et al. in view of Pinquist and Cumber.

Claim 16 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Carraro et al. in view of Cumber.

## ARGUMENT

Attorney for Appellants will argue separately the patentability of independent claims 1 and 9 and dependent claims 5 and 16. The remaining claims stand or fall with the claims from which they depend.

### Rejections under 35 U.S.C. § 112

#### **Claims 5 and 16:**

By way of background, the Examiner first rejected claims 5 and 16 under §112 in the Official Action of May, 3, 2006 stating the “uplift classification of at least 90 is indefinite as it is unclear what lifting force is being claimed and the standard of test is subject to change.” In the response dated November 3, 2006, Appellants amended claims 5 and 16 to define the “up-lift” performance “of at least 90” with greater particularity. More specifically, Appellants added language that the uplift classification of at least 90 was “in accordance with UL 580 Standard for Safety, Tests for Uplift Resistance of Roof Assemblies.” Support for this added language is found beginning on page 7, line 17. The Examiner maintained the rejection in the Official Action of February 15, 2007.

Appellants disagree with the Examiner and respectfully submit that this additional language meets the requirement of definiteness under §112. Beginning on page 7, line 17 and ending on page 9, Appellants set forth specifically that the UL 580 Standard for Safety, Tests for Uplift Resistance of Roof Assemblies is a test which

simulates the effects of wind gusts by use of oscillating exterior pressure and constant interior pressures. The UL 580 standard provides a rating system to evaluate the comparative wind resistance of roof assemblies.

Additionally on page 8, lines 5-14, for purposes of illustration, Appellants provide some information on the materials and apparatus utilized for the UL 580 test. Also, chart #1 on page 9 displays the results for the 3 classes tested using the UL 580 test, namely classes 30, 60 and 90. In view of the above description, Appellants submit that it would be clear to one skilled in the art as to what lifting force is being claimed.

With respect to the Examiner's additional reasons for rejecting these claims for indefiniteness, namely "the standard of test is subject to change," Appellants respectfully submit that reciting the particular compliance test, such as a UL (Underwriters Laboratories) or ASTM compliance tests, is a claiming technique accepted by the Patent Office. A quick patent search by Appellants' undersigned attorney revealed that since the year 1991, at least 35 patents contained claims reciting a particular UL standard and over 3000 patents contained claims reciting a particular ASTM standard. The following are but a few reciting a UL standard: U.S. Patent No. 5,554,674 (claims 1, 11 and 20); U.S. Patent No. 7,019,059 (claims 8 and 10); and U.S. Patent No. 7,221,841 (claims 2, 4, 23 and 24). Accordingly, Appellants submit that the recited language, namely "UL 580 Standard for Safety, Tests for Uplift Resistance of Roof Assemblies," should be found definite irrespective of whether or not this compliancy test is subject to change.

For the above reasons, Appellants respectfully request that the §112 indefiniteness rejection be withdrawn.

Rejections under 35 U.S.C. § 103(a)

**Claims 1 and 9:**

By way of background, Carraro et al. describes a construction fastener for interconnecting two construction elements. The construction fastener is comprised of sheet metal in strip form and includes a notched portion at one end for engaging a first of the two construction elements and, at the other end, a means for engaging the second construction element.

On page 2 of the Final Official Action of February 15, 2007 (“the Final Official Action”), the PTO asserts that

Carraro et al. shows a system comprising a main runner (76), each main runner having a vertical web and a bulb portion (77), a compression strut (30), a clip (figure 5), each clip having a first leg, a mid portion disposed between the first leg and the second leg (75), each first leg is in direct contact with and is secured to the vertical web of the main runner, each second leg is in direct contact with and is secured to the compression strut (inherently so as it is connected) and each mid-portion conforms to the bulb portion of the main runner, the bulb portion being interposed between the compression strut and the mid-portion . . .

(Emphasis Added).

As set forth in the specification, as well as in Appellants’ previously filed responses, including Appellants’ Reply of November 3, 2006 (“the Reply”), a key feature of the invention is the claimed “compression strut.” As stated in the Reply, Appellants disagree with the Examiner’s assertion that element 30 of Carraro is a “compression strut.” Compression struts are support members used in seismic construction to stabilize, i.e. strengthen, the grid framework of a paneled ceiling, by resisting uplifting forces which may be applied to the grid framework during a hurricane or other seismic event providing extreme uplift forces. Element 30, as

described by Carraro et al. at column 3, lines 2-4, is merely a “vertical portion” which interconnects the end portion 29 and the other end portion 31. In addition, Carraro et al. provide no description or suggestion that this “vertical portion” is, or is capable of, being used as a member for stabilizing a suspension system or for resisting uplifting forces. As no compression strut is described, illustrated or suggested by Carraro et al., claims 1 and 9 should be found allowable.

Additionally, claims 1 and 9 require that “the bulb portion [of the main runner] is interposed between the compression strut and the mid-portion of the clip” as illustrated in Figure 1c. Interposing the bulb portion of the main runner between the compression strut and mid-portion of the clip provides rotational resistance and stability to the ceiling system when a wind up-lift force is applied thereto.


As previously set forth by the Appellants, even if one were to consider element 30 a compression strut, the bulb portion (77) of Carraro et al.’s grid member is not “interposed between” the compression strut and the mid portion of the clip. Contrary to the Examiner’s assertion, Figures 4 and 5 of Carraro show clearly that the bulb portion (77) of T-bar (76) is not interposed between element 30 and the “bulging portion” which connects element 75 to element 80. This “bulging portion” was previously identified by the Examiner as the “mid portion” on page 3 of the Official Action of May, 3, 2006. As this “interposing” feature is not described, illustrated or suggested by Carraro et al., claims 1 and 9 should be found allowable.

As the combination of Carraro et al., Pinquist and Cumber do not describe or suggest all of the features of independent claims 1 and 9, these claims, as well as claims 5-8, 16 and 22 which depend therefrom, are neither anticipated by nor obvious in view of the combination of Carraro et al., Pinquist and Cumber. Therefore, the rejections under 35 U.S.C. §103(a), should be withdrawn and claims 1, 5-9, 16 and 22 should be found allowable.

For the reasons set forth above, the Appellants request reversal of each of the above rejections and allowance of the application.

Respectfully submitted,

11/19/07  
Date

  
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## CLAIMS APPENDIX

### Pending Claims

1. A ceiling system comprising:

a grid formed from a plurality of parallel-extending main runners and a plurality of cross runners extending between the main runners, each main runner having a vertical web and a bulb portion;

a plurality of compression struts;

a plurality of panels resting within the grid; and

a plurality of clips, each clip having a first leg, a second leg and a mid-portion disposed between the first leg and the second leg;

wherein each of the plurality of compression struts and each of the plurality of clips are discrete parts;

wherein each first leg is in direct contact with and is secured to the vertical web of the main runner, each second leg is in direct contact with and is secured to the compression strut and each mid-portion conforms to the bulb portion of a main runner, the bulb portion being interposed between the compression strut and the mid-portion.

5. The ceiling system of claim 1, wherein the system is capable of meeting an up-lift classification 90 in accordance with UL 580 Standard for Safety, Tests for Uplift Resistance of Roof Assemblies.

6. The ceiling system of claim 1, wherein the plurality of compression struts are attached to the plurality of main runners at intervals of about 2 feet.

7. The ceiling system of claim 1, wherein the plurality of compression struts are attached to the plurality of main runners at intervals of up to about 12 feet.

8. The ceiling system of claim 1, wherein the plurality of panels are downwardly accessible.

9. A support member for a ceiling panel comprising  
a main runner having a vertical web and a bulb portion;  
a compression strut; and  
a clip comprising a first leg, a second leg and a mid-portion, wherein the compression strut and the clip are discrete parts; and  
wherein the first leg is in direct contact with and is secured to the vertical web of the main runner, the second leg is in direct contact with and is secured to the compression strut, and the mid-portion is disposed between the first leg and second leg and is shaped to conform to the bulb portion of the main runner;  
wherein the bulb portion is interposed between the compression strut and the mid-portion of the clip.



16. The support member of claim 9, wherein the support member supports a ceiling system capable of meeting an up-lift classification of at least 90 in accordance with UL 580 Standard for Safety, Tests for Uplift Resistance of Roof Assemblies.

22. The ceiling system of claim 1, wherein the first leg is secured to the main runner by a first fastening device selected from the group consisting of chemical and mechanical fastening devices and the second leg is secured to the compression strut by a second fastening device selected from the group consisting of chemical and mechanical fastening device.

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EVIDENCE APPENDIX

None

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RELATED PROCEEDINGS APPENDIX

None